



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

~~PRELIMINARY ISSUE~~

9-89

D3512-1

Job Sheet 181236



Part No: D3512-1

Job Qty: 14 ea

Part Name: Wearplate



Part Weight: 0 lbs

Status: Scheduled

Job Created: 7/24/18

Job Tracking No:

Due Date: 8/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Make D3512 Rev D SMP 18-09-11
Note: DWG D3512 REV E12 IPP Rev: A New Issue 06-06-20 JLM IPP Rev: B Now SS as per Rev B 06-12-15 JLM
IPP Rev: C Rev C dwg 07-12-06 DD IPP REV: D 13.12.11 ECN13-619/ REV: D DWG DD VERF: JLM IPP REV: D
18.03.12 DWG REV: E12 DD VERF: JFS

Ship Via:

POSITIVE RECALL

AUG 03 2018

EFFECTIVE AUTH 21

RELEASED 9-89

PRIORITY: Medium

@ Rev D.

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	14 Ea	8/31/18	8/31/18	0.00	0.00	Start Up Waterjet		SC 18/10/18
100	Waterjet	14 pcs	8/31/18	8/31/18	0.00	1.31	Waterjet1		SC 18/10/18
120	QC	14 pcs	8/31/18	8/31/18	0.00	0.00	QC8		38
130	Brake NC	14 pcs	8/31/18	8/31/18	0.27	0.39	Brake NC 1		9-89
140	QC	14 pcs	8/31/18	8/31/18	0.00	0.00	QC5		15-25-25
150	Packaging	14 pcs	8/31/18	8/31/18	0.00	0.00	Packaging3		21
160	QC21-SA	14 Ea	8/31/18	8/31/18	0.00	0.00	QC21		9-89

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S16GA	304/316 Sheet .063	4.0600 sf (.29 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M304S16GA	4	124	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Wearplate	0.300inches ± 0.010	0.310 0.290	0.303	
2	Wearplate	0.300inches ± 0.010	0.310 0.290	0.303	
3	Wearplate	1.240inches ± 0.030	1.270 1.210	1.242	
4	Wearplate	2.340inches ± 0.030	2.370 2.310	2.336	
5	Wearplate	3.140inches ± 0.010	3.150 3.130	3.137	
6	Wearplate	3.840inches ± 0.030	3.870 3.810	3.837	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS				
Part No. _____		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	
NCR No. _____		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
		Large Fab ☐	Composite ☐	Supplier ☐		

Date : _____

Step #: _____

QTY Effective : _____

QB (QS1042) Approval

Description Work Order Devi

Completed By

Hand / Supervisor
Approval VerificationQA Coordinator
Approval

DART AEROSPACE
Container No: S096803
Part: D3512-1
Job No: 181236
Serial No/Batch: S096803
Revision: E12
Inspector:
Exp Date:
Instructions: Various STC's
Date: 07/26/18

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1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 813 632-5200
Email: sales@dartaero.com
www.dartaero.com

Root Cause			
Environment ☐	No Re-verification ☐	Pressure/ ☐	tioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	ide Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Nc ☐	/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	. Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kin ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐		
Misidentified ☐	Past Due ☐	OTHER : _____	

7	Wearplate	12.605inches $\pm$ 0.010	12.615 12.595	12,605
8	Wearplate	14.220inches $\pm$ 0.030	14.250 14.190	14,220
9	Wearplate	0.063inches $\pm$ 0.010	0.073 0.053	0,059

Plex 7/24/18 9:46 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



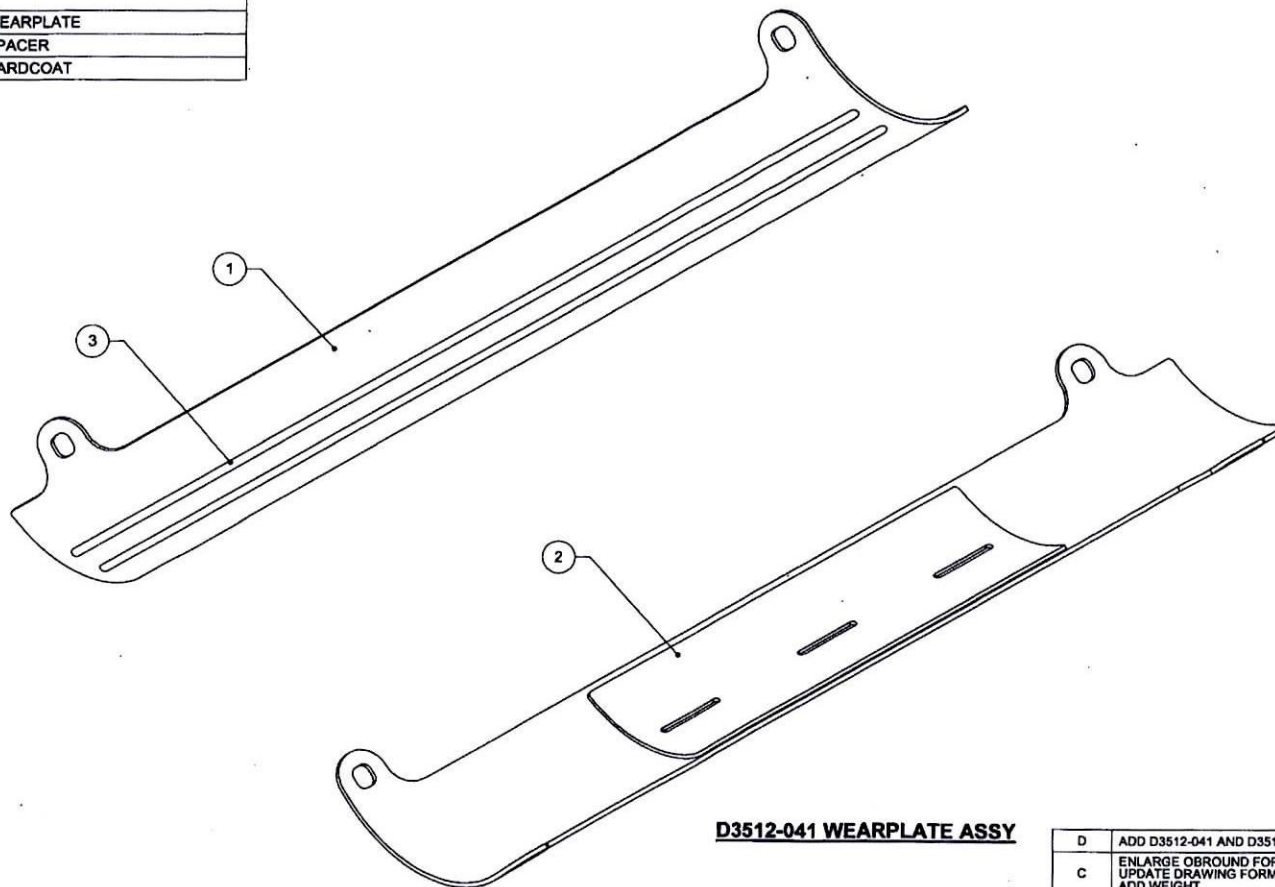
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3512-041	WEARPLATE ASSY
1	1	D3512-1	WEARPLATE
2	1	D3512-3	SPACER
3	A/R	2059B	HARDCOAT

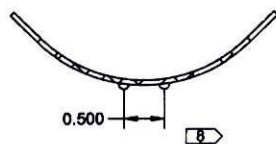
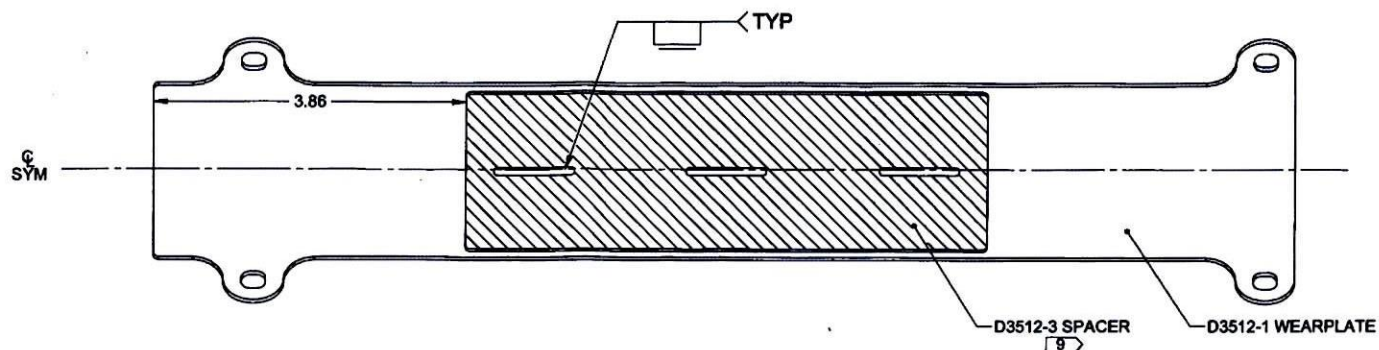


D3512-041 WEARPLATE ASSY

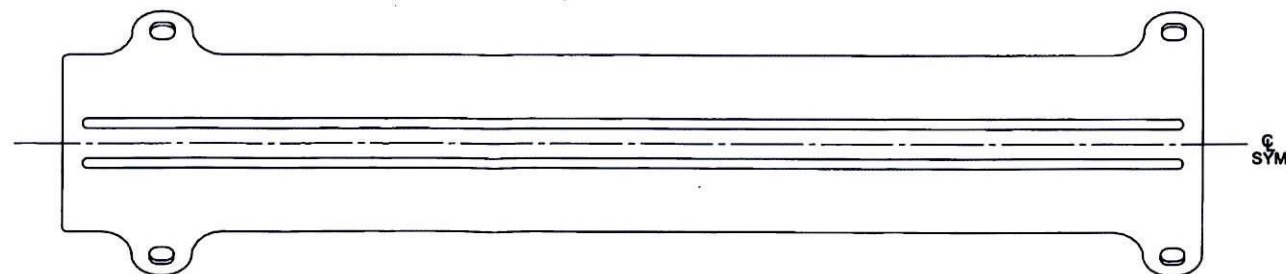
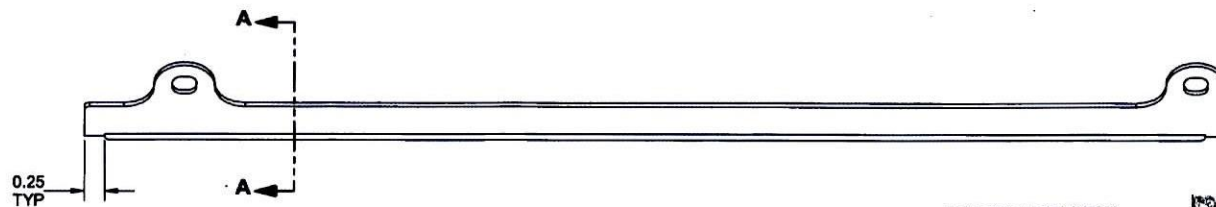
RELEASED
2013-12-10

UNDER REVIEW
URF18-745 SAD 18-06-19

DESIGN	DW	DART AEROSPACE LTD	REV. D
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	
MFG. APPR.		D3512	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
DATE	13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



SECTION A-A
SCALE 1:1.5



D3512-041 WEARPLATE ASSY

NOTES:

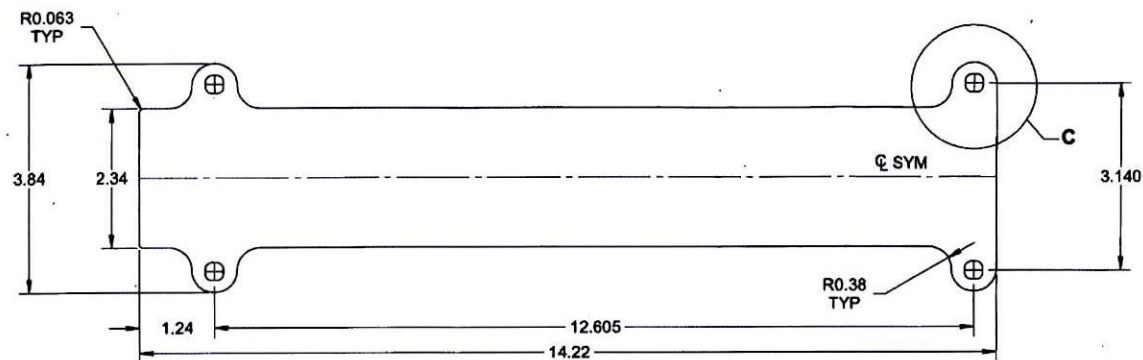
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3512-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.94 lbs
- 8) WELDING: PER QSI 004. 2059B HARDCOAT WELD 0.063 TO 0.125 THK
- 9) COAT HATCHED (CONCAVE) SURFACE WITH PLUS ONE ROCKGUARD 4714, 0.020-0.040 THK

UNDER REVIEW
URF18-745 SAD 18-06-19

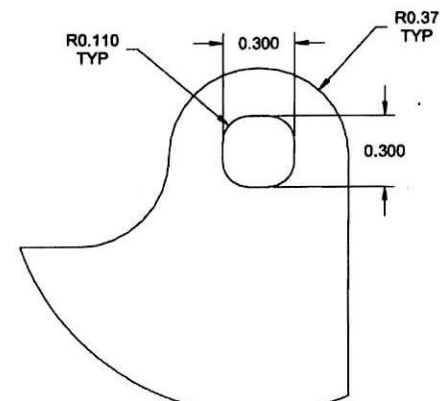
RELEASED
2013-12-10

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MFG. APPR.		D3512	SHEET 2 OF 4
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8 7 6 5 4 3 2 1



D3512-1F



DETAIL C
SCALE 2X

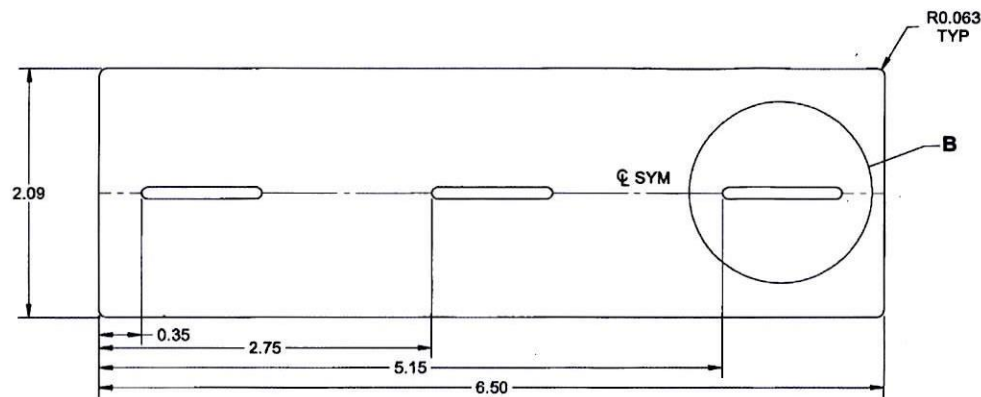
UNDER REVIEW
URF18-745 SAD 18-06-19

RELEASE
2013-12-10
WP

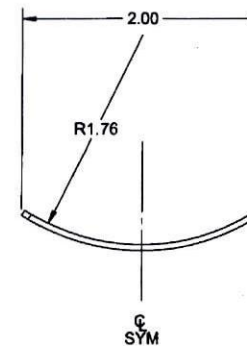
- NOTES:
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 18 GAUGE 0.063 THICK (REF DART SPEC. MS304S16GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.63 lbs

DESIGN	DW	DART AEROSPACE LTD	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AD</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>AD</i>	D3512	SHEET 3 OF 4
APPROVED	<i>AD</i>	TITLE	SCALE
DE APPR.	<i>AD</i>	WEARPLATE ASSY	NTS
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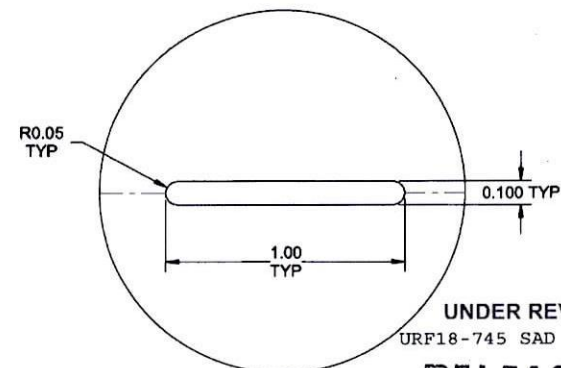
8 7 6 5 4 3 2 1



D3512-3F FLAT PATTERN



D3512-3 SPACER
MAKE FROM D3512-3F



DETAIL B
SCALE 2X

UNDER REVIEW
URF18-745 SAD 18-06-19

RELEASED
2013-12-10

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240
18 GAUGE 0.050 THICK (REF DART SPEC. MS304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.19 lbs

DESIGN	DW	DART AEROSPACE LTD	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3512	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
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